

REMARKS

Claims 1-19, 21-23, 26-30, 40-42, 65, 66, 68-71, 75-82 and 84-112, 116-119 and 123-140 are pending in this application. In this response, claims 48, 113-115 and 120-122 are canceled without prejudice, claims 1, 6, 8, 75, 76, 78-80, 87, 89, 94-96, 98, 108, and 123-125 are amended and new claims 126-140 added. Claims 22, 23, 27-29, 65, 66, 68-71, 106, 107, 124 and 125 are withdrawn from consideration but remain in the application. Accompanying this Amendment is the Declaration of James H. Freiss, P.E., one of the inventors of the present invention.

In the following remarks the rejection based on § 103 is first generally addressed, followed by specific discussion of each of the independent claims and its dependent claims, then the double patenting rejection is addressed and finally a further election proposed.

Rejections Under 35 USC 103

The rejection of all pending claims as obvious over Lang (4,094,740) is respectfully traversed and reconsideration requested in light of the remarks set forth herein and the accompanying declaration of James H. Freiss, a person at least of ordinary skill in the art (cited hereinafter as “Freiss, ¶ ___”). For the reasons stated in detail below, the claims of the present invention are not rendered obvious by the Lang patent. As a person of at least ordinary skill in the art, Mr. Freiss has also reached and supports this conclusion. Freiss, ¶ 25.

As the Examiner has at least recognized that Lang does not anticipate the present invention, the rejection can only be based on § 103 as the Examiner has attempted to do. However, in rejecting the claims as obvious under § 103, the Examiner may not simply line up elements as one would do for an anticipation rejection. The Examiner must provide an analysis of the state of the art, the level of skill and knowledge in the art and the differences between the claimed invention and the cited prior art. MPEP 2141. Further, the Examiner must present a rational for how and why a person of ordinary skill in the art would make the supposed changes or modifications proposed by the Examiner to meet the claim limitations: “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. MPEP 2143.01.IV, quoting *KSR International Co. v Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007). Moreover, when the Examiner asserts that something is known in the art

without any documentary evidence there must be a clear technical line of reasoning and, when challenged by the Applicant, the Examiner must provide support or evidence of such assertions. MPEP 2144.03B and C. The Examiner has failed to provide any meaningful analysis or support as required in this case and when the disclosure of Lang is properly viewed as would be understood by a person of ordinary skill in the art, and the proper comparison to the claims is made, it is clear that the present invention as claimed is not obvious in light of Lang.

Lang discloses a process of making an ethanol fuel from a solid municipal waste feed by fermentation. Freiss, ¶ 6. Such processes are well understood in the art. In order to produce “fermentable sugar-like materials” by saccharification through hydrolysis, Lang first teaches a series of flotation based separation steps to produce what is referred to as “hydrolyzable materials.” (Col. 2, lns. 5-37). Since Lang explicitly states that the hydrolysis step is a step in which “hydrolyzables are saccharified to fermentable sugar-like materials” a person of ordinary skill in the art is clearly taught that the primary product of the Lang hydrolysis is a water stream containing dissolved short chain sugar compounds, such as glucose, suitable for fermentation to produce alcohol. Freiss, ¶ 6. Lang does not describe the hydrolysis conditions or process, presumably because hydrolysis to saccharify various feedstocks to produce short chain sugar compounds for fermentation is a well understood process in the art and there are numerous variations possible. Freiss, ¶ 7. To ensure that only “fermentable sugar-like materials,” which optionally may be “carmalized,” *e.g.* such as glucose, are delivered to the fermentation step, Lang employs post hydrolysis filtration 20 and evaporation 21, with the removed materials recycled back to hydrolysis 19. Fermentation 22 and the downstream processing steps thereafter described are again conventional steps in the production of alcohol based fuels such as ethanol. Freiss, ¶ 8.

The application of the fermentation process described by Lang to the claims of the instant application is thus based on a number of faulty premises. First, a person of ordinary skill in the art would immediately understand Lang to disclose a biologically based process for the production of alcohol, and thus would not turn to its teachings when considering a physical chemical process for the production of oil. Freiss, ¶ 5. Next, the Examiner makes the completely unsupported assertion that “the product from the hydrolysis would include at least a small amount of oil.” (Office Action, p. 5). There is no disclosure anywhere in Lang that states

that oil is produced in hydrolysis. The citation provided by the Examiner for this assertion is “See abstract; the Figure; col. 2 lines 30 through col. 3, line 56.” The Examiner thus cites to virtually the entire specification other than the background and claims, but nowhere is oil mentioned. Freiss, ¶ 14. Such an assertion must be supported by evidence. MPEP 2144.03C

Moreover, even if oil were a product of hydrolysis in Lang, that is not the end of the analysis because the present invention involves subsequent processing of the reaction products produced in the claimed hydrolysis, subsequent processing that is recited in the instant claims and which further distinguishes Lang. See Freiss, ¶¶ 15-25. The Examiner has not addressed those subsequent processing steps, instead treating the claims as if they end at hydrolysis. As such, the Examiner has failed to properly compare the claimed invention to the prior art and has not presented even a prima facie basis for obviousness. MPEP 2142.

The Examiner also makes a number of unsupported assertions that the process conditions in Lang, which are not disclosed, either meet or may be modified to meet the limitations of the instant claims. But undisclosed process conditions cannot meet specific claim limitations and there is no basis for the proposed modifications because they are not merely optimizations of known processes as asserted. Because Lang and the claimed invention are fundamentally different processes intended to produce different products, a person of ordinary skill in the art would have no reason to modify Lang to achieve the conditions and results of the present invention. Freiss, ¶ 5.

It also would not be obvious to a person of ordinary skill in the art to modify “the process of Lang by converting the liquid product to hydrocarbon oils as claimed” as asserted by the Examiner (office action, p. 6). First, it is not clear as to what liquid product the Examiner refers. If the Examiner is referring to the liquid product of the Lang hydrolysis 19, then the assertion is wrong because the product of hydrolysis in Lang is exclusively intended for fermentation. Converting it to a hydrocarbon oil would destroy its effectiveness for fermentation and thus destroy the intended purpose of the process disclosed in Lang. Freiss, ¶ 9. A modification that destroys the intended purpose of a reference cannot be the basis for an obviousness rejection. MPEP 2143.01.V. Alternatively, if the Examiner is referring to the final liquid fuel product of Lang 28, that product is exclusively an ethanol-water mixture, which cannot be converted to a hydrocarbon fuel oil. Freiss, ¶ 9.

For these reasons alone, the claims of the present invention are patentable over the cited references. However, the numerous claim limitations that further define over the art are discussed below.

Claims 1-19, 21, 26-30, 40-42, 84, 85, 87-95, 108-112

Claim 1 recites a sequence of steps in which there is first a heating to breakdown components of the slurry to produce a conditioned slurry and then a reaction to hydrolyze materials in the conditioned slurry to produce a reacted feed. The reaction is recited as occurring at a pressure of “at least the saturation pressure of water in the slurry.” Lang does not disclose this limitation, nor any specific process limitations as explained above. To attempt to meet this limitation, the Examiner offers the unsupported assertion “[s]ince the reaction zone [in Lang] is operated under hydrolysis, it would be expected the pressure in the reaction zone is at least at the saturation pressure of water.” (Office Action, p. 4). But there is no reason for such expectation because (1) hydrolysis reactions for creating fermentable materials in ethanol production are of virtually infinite variety and (2) Lang teaches away from high temperature, high pressure processes wherein a person of skill in the art would expect the saturation pressure to be exceeded. See Freiss, ¶¶ 10-12.

As explained by Mr. Freiss, there is a wide variety of operating parameters for known hydrolysis reactions used in ethanol production. Among the various known parameters are processes for low temperature and low pressure dilute acid hydrolysis, including processes operated at ambient pressure wherein the saturation pressure of water in the hydrolyzed materials is not reached. Freiss, ¶ 13. Given this wide variety of known choices, there is no reason that any one set of conditions would be favored over another absent some stated preference for one set of operating conditions over others. Freiss, ¶ 10. But Lang does include just such a stated preference. In the background portion of the disclosure, Lang discusses the disadvantages of operating “under conditions of high temperatures and pressures.” [Col. 1, Ins. 20-27]. Thus, a person of ordinary skill in the art reading Lang would be directed away from high temperature and pressure processes to known low temperature, low pressure dilute acid hydrolysis processes. Freiss, ¶ 12. Given that such processes can be operated without meeting or exceeding the saturation pressure of water in the hydrolyzed materials, there is no reason for the so-called

“expectation” asserted by the Examiner, which is nothing more than unsupported speculation. Freiss, ¶ 13. This difference alone distinguishes claim 1 and its dependent claims over the cited reference. But it is not the only difference.

The reacted feed produced in the hydrolysis reaction of the present invention is recited as comprising at least one reacted solid product and at least one reacted liquid product. The at least one reacted liquid product is further specified as “comprising a liquid mixture of carbon-containing species and produced water containing soluble.” This composition is described for example at paragraphs [0062-64] and in FIGS. 3 and 4 of the instant application. After these products are produced in the reacting step, the solid product, produced water and liquid mixture of carbon-containing species are separated. Thereafter, the liquid mixture is converted to a useful material.

Even assuming that the Lang process produced an oil at some point, which the Examiner has failed to establish, the post hydrolysis processing recited in claim 1 of the instant application has no parallel in Lang, nor would it be obvious to modify Lang to include such processing. Freiss, ¶ 15. The products of hydrolysis in Lang are filtered and evaporated to concentrate the “fermentable sugar-like materials” in to a filtrate that is directed to fermentation 22. It would be well understood by persons of ordinary skill in the art that such a filtrate would consist of water with dissolved short chain sugar compounds. Freiss, ¶ 16. Thus, to the extent that Lang can be at all compared to the present invention, the filtrate directed to fermentation in Lang corresponds to the produced water recited in claim 1. Freiss, ¶ 16. But claim 1 specifies that the further processing step of converting to form a useful material is a conversion of the liquid mixture of carbon-containing species, not the produced water. (Claim 1, ln. 15). Instead, Lang specifically states that the products of hydrolysis 19 other than the filtrate, which is directed to fermentation, are recycled back into hydrolysis 19. Col 2, lns. 43-48. Freiss, ¶ 17. A person of ordinary skill in the art would not modify Lang to meet the claim language because doing so would destroy the operation of Lang for its intended purpose of producing alcohol by fermentation. See, Freiss, ¶ 9.

For all of these reasons, Lang does not and cannot meet the limitations of claim 1. Whether or not it might be obvious to add a preheating step as asserted by the Examiner is of no moment as the Examiner has failed to establish a *prima facie* basis for obviousness over Lange.

But for reasons explained in more detail below, there is no basis for the bald assertion that heating generally would improve the process conditions when specific, separate heating steps are claimed. See *infra*, page 19.

Claims dependent on claim 1 provide further limitations that further support patentability over the recited reference. For example, claims 2-4 and 40 recite that the useful materials produced liquid mixture of carbon-containing species are carbonaceous, carbon solids and/or hydrocarbons including fuel gas and oil. There is no suggestion that these materials be produced by the process of Lang and the Examiner's speculation that oil might be produced is nothing more than speculation. As described in the present specification, conversion to carbon solids 142 requires a second reaction at highly elevated temperatures (described as the Third Stage 140). See, for example, paragraphs [0105-108], [0115-121] and FIGS. 1, 5 and 6. There is no such conversion step described or suggested in Lang and such a step would be contrary to the purpose of Lang. Conversion of the liquid mixture of carbon-containing species to fuel gas and/or oils also may involve the second reaction as described, or alternatively may involve simply a further liquid/liquid separation. See, for example, paragraph [0164] and FIG. 8A. Without such converting steps performed on the stated liquid mixture, Lang cannot produce the claimed products. See, Freiss, ¶ 20.

Claim 5 recites driving off ammonia as part of the slurry preparing process. The Examiner makes no attempt to find this limitation in the art. Removal of free ammonia, especially when the feedstock comprises animal processing wastes, is described, for example, in paragraph [0083] of the instant application. As described therein, such may include separation of urine content prior to slurrying, use of enzymatic degradation, application of heat or conversion to salt by acidification. No such processes are suggested or disclosed by Lang and because the reactions that take place in the Lang process are dramatically different than those of the claimed invention, there is no reason that a person of ordinary skill would add such a processing step to Lang. Freiss, ¶ 18.

Claims 6 and 7 recite specific, high pressures and claim 8 recites a specific high temperature range for the reacting step. As explained above, the disclosure of Lang specifically teaches away from high temperatures and pressures as discussed above and given the knowledge in the art as shown above that hydrolysis can be conducted at low temperature and ambient

pressure to achieve the fermentable sugars produced by Lang, there is no reason for a person of ordinary skill in the art to modify the Lang process to operate at the recited high temperature and pressure ranges. (See Freiss, ¶¶ 10-13.)

Claims 13 and 14 further recite that the reacting drives off steam and that the steam is redirected to the slurry during the preparing stage. No such steps are disclosed or suggested in Lang and once again, no rationale is offered by the Examiner for the rejection of these claims. Given the teaching away from high temperature and pressure, a person of ordinary skill in the art would not be motivated to generate steam or to divert it to earlier in the process stream of Lang.

Claims 18 and 19 recite diverting a portion of the reacted liquid product prior to the primary converting step and then converting that diverted portion into a specialty chemical, with the specialty chemical comprising a fatty acid. No such steps or products are disclosed or suggested in Lang. To the extent the Examiner considers fermentation 22 to be the converting step of claim 1, there is no diversion of any product of the hydrolysis prior to that step except back into the hydrolysis. Freiss, ¶ 19.

Claims 87 and 88 recite that the converting comprises a liquid/liquid separation performed on the liquid mixture of carbon-containing species that comprises a part of the reacted liquid product from the hydrolysis reaction and the production of fuel oil thereby as disclosed, for example, in FIG. 8A. Not only does Lang fail to disclose or suggest production of a fuel oil as explained above, there is simply no liquid/liquid separation disclosed in Lang that can correspond to the limitation of claim 87. Freiss, ¶20. These claims thus further define over the cited references.

Claim 89-92 recite further processing conditions of the converting stage involving high temperatures in excess of 300 °C and cracking of liquid hydrocarbon fuel. There is simply no basis in the disclosure of Lang for asserting that these claims are obvious and the Examiner has made no attempt to do so.

Claims 93-95 further recite the reacting step as decomposing and hydrolyzing to deaminate and decarboxylate the feedstock. Once again, these specific steps are not suggested in Lang and the Examiner has made no attempt to support the rejection of these claims. Moreover, since the objective of the Lang process is to produce a fermentable material, such

reactions are not necessary and there would be no reason for a person of ordinary skill in the art to attempt to control the Lang process to produce such reactions. Freiss, ¶ 21.

Claim 108 recites that the reacting step of claim 1 further includes both hydrolysis and decomposition reactions as described in the specification, for example at paragraphs [0060-61]. No such decomposition reaction is described in Lang. Moreover, given the stated preference away from high temperature and high pressure processes as explained above, a person of ordinary skill in the art would not be motivated to alter the process conditions of Lang to produce a decomposition reaction. Freiss, ¶ 21.

For all of the forgoing reasons, claim 1 and the claims dependent thereon are patentable over the cited reference and reconsideration of the rejections is respectfully requested.

Claims 75-82 86, 116, 117

Independent claim 75 recites two specific heating steps before the reacting step, steps with specific effects that are not addressed by the Examiner. The Examiner asserts, without any factual support, only that it would have been obvious to heat the feedstock “as claimed because it would be expected that heating the feedstock to the reaction conditions would improve effectiveness of the process.” The first problem with this statement is that there are no stated reaction conditions for the hydrolysis in Lang. Whether or not heating could be “expected to improve effectiveness” would depend on the intended operating parameters. As explained above, it is well known that hydrolysis to produce sugars for ethanol production as disclosed in Lang can occur over a wide variety of operating conditions including low temperature and ambient pressure. Thus, in a low temperature hydrolysis reaction, there would be no reason for separate heating steps beyond the heating in the reacting itself. Freiss, ¶¶ 10-13 and 24.

But claim 75 does not merely recite heating or pre-heating. Claim 75 recites a staged heating at three different temperatures, each with different effects: an initial temperature, a first temperature and a second, higher temperature. Even if it were obvious to preheat as asserted by the Examiner, which Applicant asserts it is not, the specific sequence of recited steps is taught nowhere but in the instant application. Once again, the Examiner has failed to provide any support or even a technical line of reasoning for why Lang would be modified by a person of ordinary skill in the art to include three, specific, sequential heating steps.

Moreover, the heating at each different step has specific recited effects also not disclosed or suggested. Claim 75 first recites an initial heating to an initial temperature “sufficient to maintain the slurry in a liquid state and limit biological activity in said slurry.” Next, the first temperature is sufficient to break down protienaceous materials in the slurry and drive off ammonia. Again, this is a specific operating parameter that is not disclosed or suggested in Lang and which cannot be met by pure speculation on the part of the Examiner. Moreover, the heating at the first temperature creates a “conditioned slurry” as recited. That is a slurry with proteins broken down and ammonia driven off. It is only this slurry that is subjected to the reacting step to hydrolyze material in the conditioned slurry. A process staged in this manner is not suggested by the cited reference. See, Freiss, ¶ 10.

Claim 75 also recites that the reacting occurs at a pressure of at least the saturation pressure of water in the conditioned slurry. Once again, the Examiner asserts without support that “[s]ince the reaction zone [in Lang] is operated under hydrolysis, it would be expected the pressure in the reaction zone is at least at the saturation pressure of water.” However, as explained above, there is no reason for such an “expectation” and a person of ordinary skill in the art would not understand that the Lang hydrolysis necessarily occur at or above the saturation pressure. (See Freiss, ¶ 13.) Such an unsupported and erroneous assertion cannot form the basis for an obviousness rejection.

Claim 75 further recites that the products of the reacting step are at least one solid reacted solid product and at least one reacted liquid product. The reacted liquid product is recited as comprising at least two components 1) floatable organic materials and 2) water containing solubles. The subsequent separating step separates the solid product and the water containing solubles from the at least one reacted liquid product. This is fundamentally different from the Lang process. To the extent the Lang hydrolysis 19 could be considered to correspond to the hydrolysis of the instant invention as asserted by the Examiner, it is the water containing solubles, i.e. the dissolved “sugar-like materials” suitable for fermenting that are left in the reacted liquid product, not floatable organic materials, which would not ferment. Freiss, ¶¶ 8, 9 and 22.

Claim 75 then goes on to recite a step of converting the at least one reacted liquid product to hydrocarbon oil, fuel gas or carbon. This is possible with the present invention because the

prior separating steps left the floatable organics in the reacted liquid product and removed the water containing solubles. But since Lang teaches that everything other than the water with soluble sugars is redirected back into hydrolysis 19, there can be no converting as claimed. Freiss, ¶ 8. This reason for patentability is in addition to the basic fact that Lang does not disclose and would not be understood by a person of ordinary skill in the art as disclosing production of hydrocarbon oils, fuel gas or carbon.

Claims dependent on claim 75 recite limitations that are further patentable over the cited reference. For example, claim 76 recites the specific temperature of the reacting step as being between about 150 °C-330 °C. Claim 78 recites a specific temperature of about 250 °C. Claims 79 and 80 recite specific pressures between 20-120 atmospheres and about 50 atmospheres, respectively. In the absence of any operating conditions stated in Lang, the Examiner asserts it would have been obvious to use any temperature or pressure. This is an incorrect reading of Lang as explained above. A person of ordinary skill in the art would not consider operating Lang at high temperatures or pressures because Lang specifically states such are “disadvantageous” as explained above. Thus, in light of the clear teaching away from high pressure and temperature, and in light of the knowledge in the art of sugar producing hydrolysis reactions at temperatures of 100 °C and lower and at ambient pressures, a person of ordinary skill in the art would not modify the Lang process to operate in the recited temperature range. (See Freiss, ¶ 13).

Claim 77 further recites that the converting step takes place at a temperature in the range of about 300 °C to 525 °C. The Examiner has apparently equated the fermentation and subsequent steps of Lang to the recited converting. But fermentation simply cannot occur at 300 °C or greater. It is well known in the art that the sugars and yeast would burn up at those temperatures. There is no basis for the rejection of this claim.

Claims 96-105, 118, 119, 123, 126 (new)

Claim 96 again discloses a specific sequence of steps not suggested by Lang, a sequence that the Examiner does not address in the rejection. First, for the reasons explained above, Lang does not disclose heating to limit biologically activity in the slurry before the reacting step. Claim 96 also recites decomposition and hydrolysis reactions. But decomposition as defined in

the instant application requires high pressure and temperature (see paragraph [0061]), contrary to the purpose of Lang (see col 1, lns 15-25]. Since hydrolysis for the purpose of making sugars can take place at low temperatures and pressures , and since Lang specifically states that high temperatures and pressures are disadvantageous, a person of ordinary skill in the art would not be motivated to operate the Lang process so as to produce a decomposition reaction in addition to the hydrolysis at the high temperature and pressures required. (See Freiss, ¶ 10-13).

After the reacting steps, claim 96 recites three different separations to obtain a fuel oil. The first separating step separates liquid, gaseous and solid fractions produced in the reactions. But claim 96 goes further to recite a second separating of water from the previously separated liquid fraction to produce a fuel oil containing liquid. While Lang does disclose downstream water removal after the fermentation, the product is ethanol, not a fuel oil. But this is not the end of the claimed process; the fuel oil containing liquid is subjected to a further separation of liquid to provide a fuel oil. This sequence of separation steps leading to provision of a fuel oil is simply not taught or suggested in Lang and there would be no reason to modify Lang to include the recited steps. Freiss, ¶ 23.

For all of these reasons, claim 96 is patentable over the cited reference. In addition, the claims dependent on claim 96 are separately patentable over the cited references in light of their further limitations. For example claim 97 recites that the decomposition reaction comprises deamination and decarboxylation. This is not disclosed or suggested in Lang and would not be possible at low temperature operation as suggested by Lang. Freiss, ¶ 21. Claim 98 requires the decomposition and hydrolysis reactions to occur simultaneously, once again not possible if Lang employs a low temperature hydrolysis as suggested.

Claim 101 further recites that the temperature of the hydrolysis reaction is between about 200 °C to about 290 °C. This is the temperature range in which fats are hydrolyzed into fatty acids and glycerols (see paragraph [0088]) as one of the precursors to forming a useable fuel oil. Because a person of ordinary skill in the art would understand Lang to operate in a lower temperature regime, as explained above, this limitation also cannot be met by Lang and a person of ordinary skill in the art would not modify Lang to attempt to achieve it.

Claims 103 and 104 further recite fractional distilling and cracking steps conducted on the oil produced as a result of the claim 96 steps. There is simply no suggestion of such steps in

Lang and no reason to add or modify such petroleum processing steps to the alcohol production process of Lange. Moreover, the Examiner has offered no reason why a person of ordinary skill in the art would arrive at the steps in combination with the Lang disclosure.

New Claims 127-140

New independent claim 127 contains a number of limitations not addressed by the Examiner in the office action. Beginning with the reacting step, claim 127 recites, *inter alia*, reacting to produce a reacted liquid product that includes an organic liquor and produced water wherein the organic liquor comprises a liquid that contains a mixture of carbon-containing species and the produced water comprises water with solubles. Lang does not disclose these products as products of hydrolysis 19 and the Examiner may not rely on unsupported factual assertions to attempt to meet these limitations. MPEP 2144.03 B and C.

After the reacting step, claim 127 recites a further, specific sequence of steps performed on the reacted feed and its constituents:

lowering temperature and pressure of the reacted feed, to produce an intermediate feed;
separating the at least one reacted solid product from the intermediate feed, thereby
producing a mixture comprising organic liquor and produced water;
separating said produced water from the organic liquor; and
subjecting said organic liquor to a liquid-liquid separation to produce at least an oil
fraction.

This specific sequence of steps and handling of the reaction products is not disclosed or suggested in Lang, nor would it be obvious to modify Lang to meet these limitations.

Freiss, ¶ 24.

For these reasons claim 127 is patentable over the cited reference. Additionally the claims dependent on claim 127 contain a number of the limitations discussed in detail above and are further patentable over Lang for the same reasons as discussed above. For example, among other reasons, Lang does not disclose heating to break down components of the slurry nor reacting at least at the saturation pressure as recited in claim 128. Lang also does not disclose the specific sequence of heating steps, pressure and temperatures recited in claims 129 – 132. Moreover Lang does not disclose a second reaction as recited in claim 133.

Double Patenting Rejection

The obviousness-type double patenting rejection over U.S. Patent No. 7,310,060 is respectfully traversed and reconsideration again requested. In the continued rejection the Examiner has not addressed all of the limitations of claims independent claims 1, 75 and 96 that distinguish those claims from the patent. The differences are not merely a generic pre-heating step and the selection of feedstock as suggested by the Examiner in the last office action. It is respectfully requested that the Examiner address all of the limitations as set forth in the prior response. In view of all those limitations, taken as a whole, it is respectfully submitted that the obviousness type double patent rejection cannot be maintained. However, regardless of the fact that the rejection is unsupportable, in order to expedite the prosecution of the instant application, a terminal disclaimer is submitted herewith.

Further Election

Once again, in an attempt to expedite the prosecution of the instant application, Applicant repeats the following elections in advance: Rubber, Mixed Plastics, and PVC; in that order. Claims reading on the species Rubber are 22, 23, 65, 66, 68, 107 and 137. Claims reading on the species Mixed Plastics are 22, 69-71, 106 and 138. Claims reading on the species PVC are 28, 29, 106 and 138. The generic claims remain as previously identified, with the addition of new claims 127-133 being generic.

Applicant respectfully requests that, after completing the search for the currently elected Animal Processing Waste, if the current species is found allowable, each other species be searched in the order set forth above without the need for subsequent written election requirements. Alternatively, if necessary, Applicant's representative will elect these species in the stated order by telephone to avoid the need for further written election requirements.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application as a whole is in form for allowance. However, should any new issues arise, in order to expedite future prosecution, the Examiner is respectfully requested to contact the undersigned by telephone at 802-846-8305.

No additional fees are believed to be due in connection with the filing of this response. To the extent it is determined that any additional fees are due, please charge such additional fees to Downs Rachlin Martin PLLC Deposit Account No. 04-1588.

Respectfully submitted,

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